STATE OF MARYLAND

DHMH

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June 24, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:24
Reporting for the week ending 06/19/10 (MMWR Week #24)

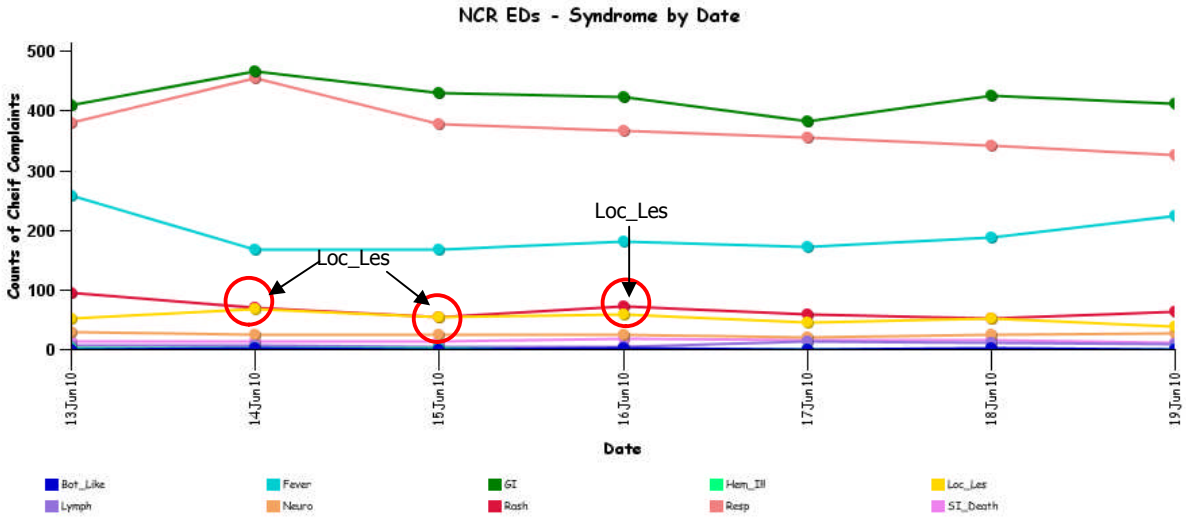
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

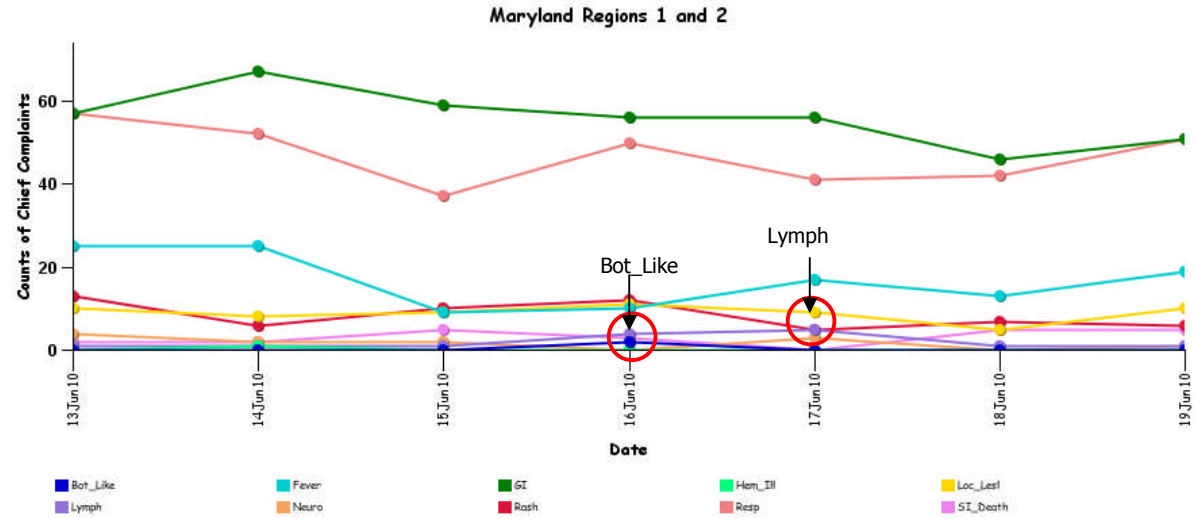
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

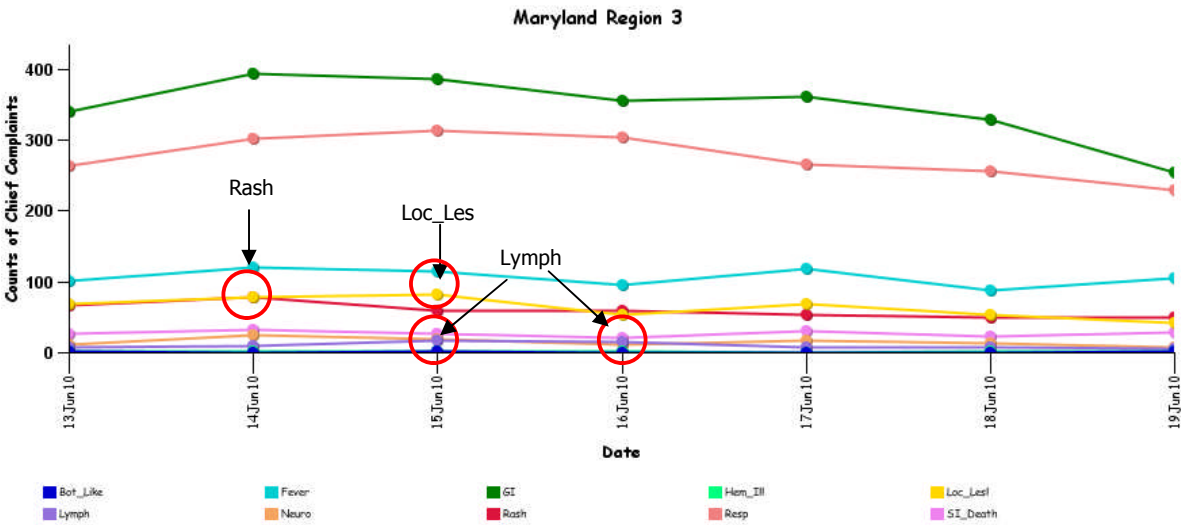


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

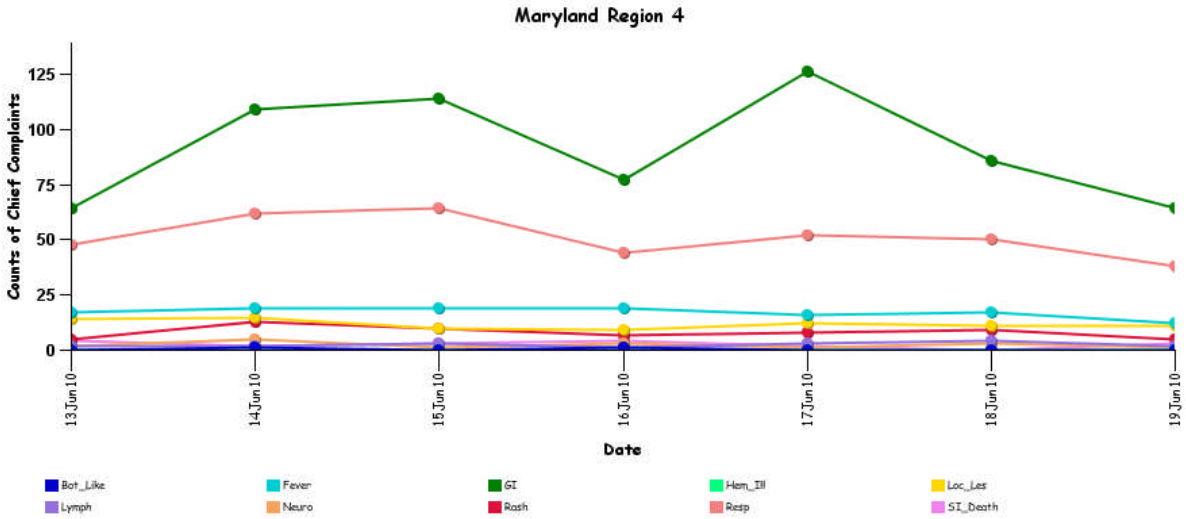
MARYLAND ESSENCE:



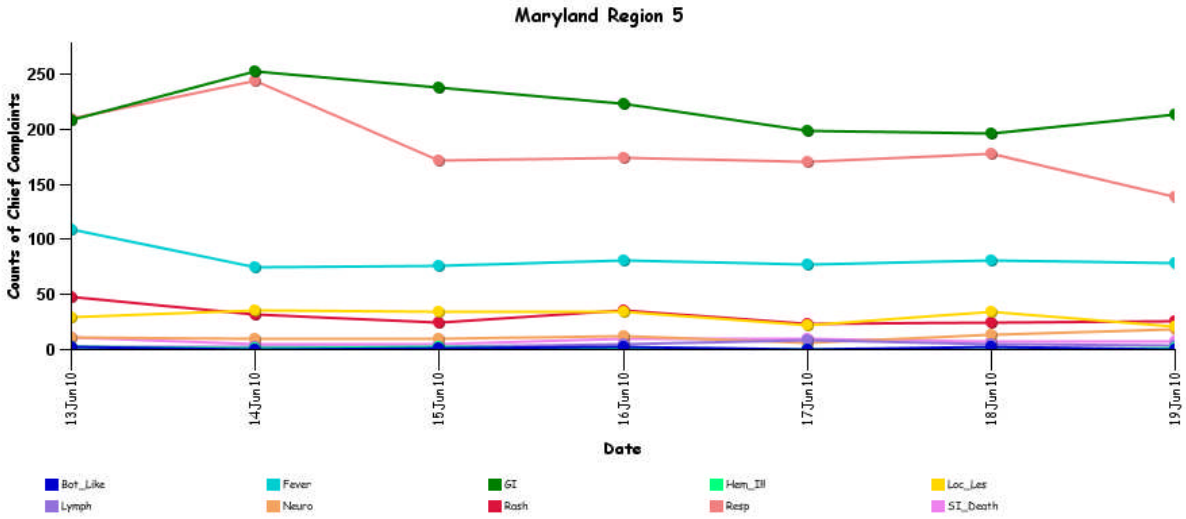
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

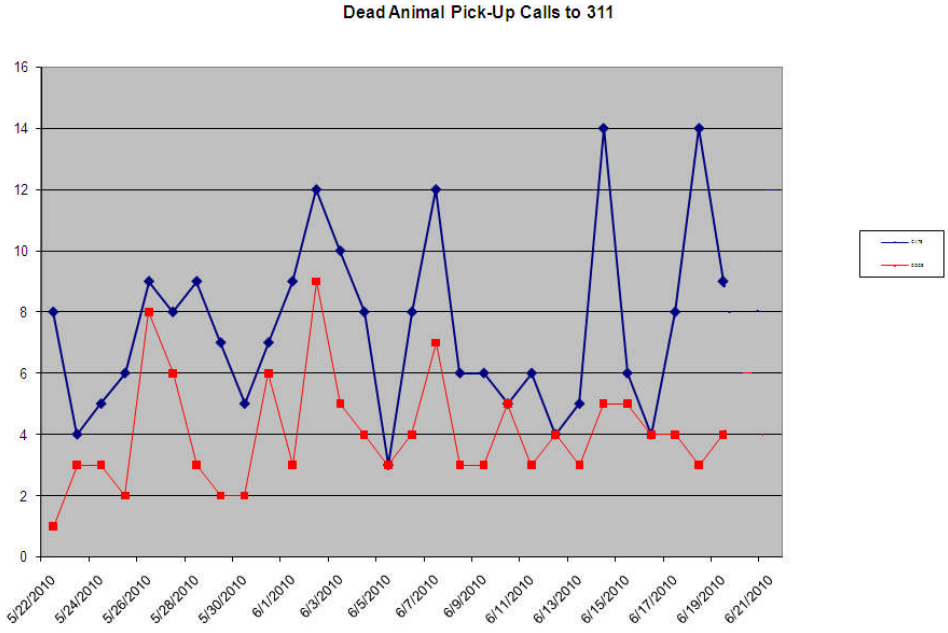


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



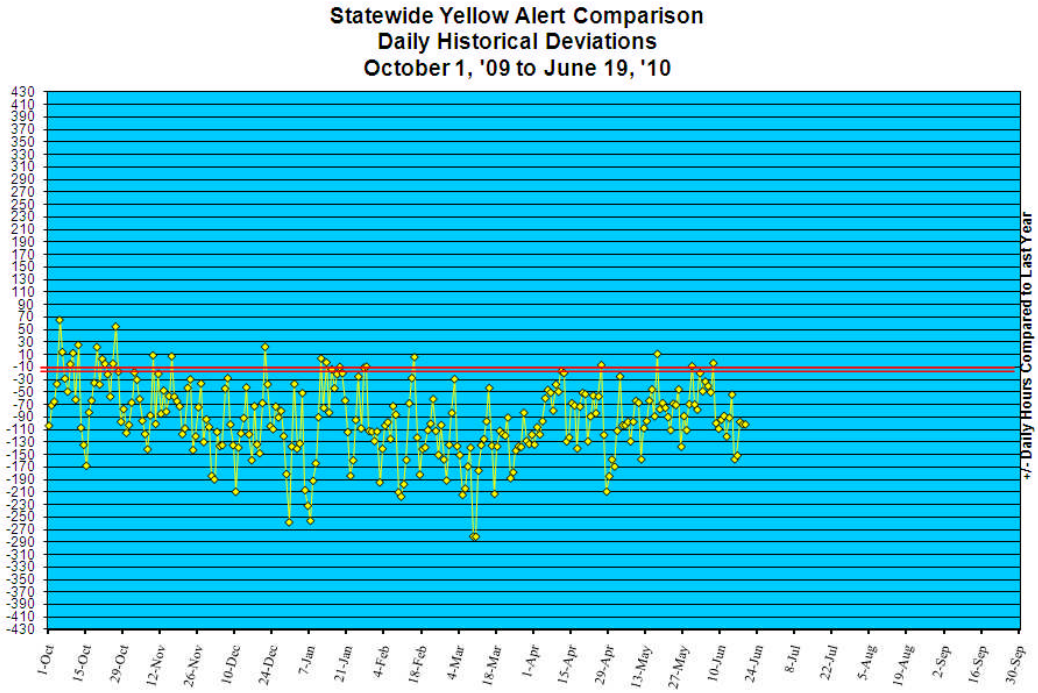
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

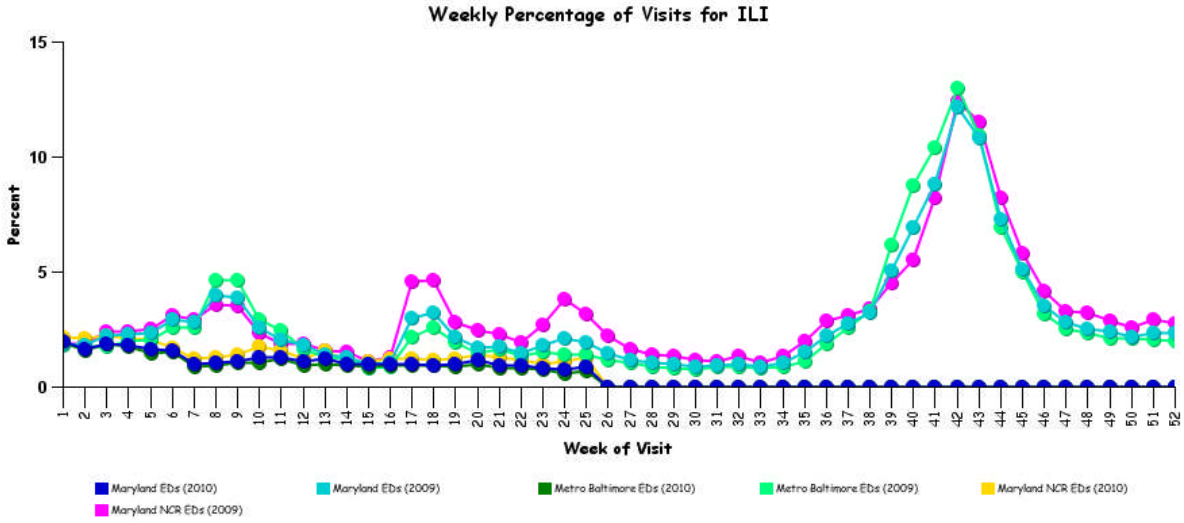
Meningitis:	**Aseptic**	**Meningococcal**
New cases (June 13 - June 19, 2010):	14	0
Prior week (June 06 - June 12, 2010):	15	0
Week#24, 2009 (June 14 - June 20, 2010):	12	0

0 outbreaks were reported to DHMH during MMWR Week 24 (June 13-19, 2010)

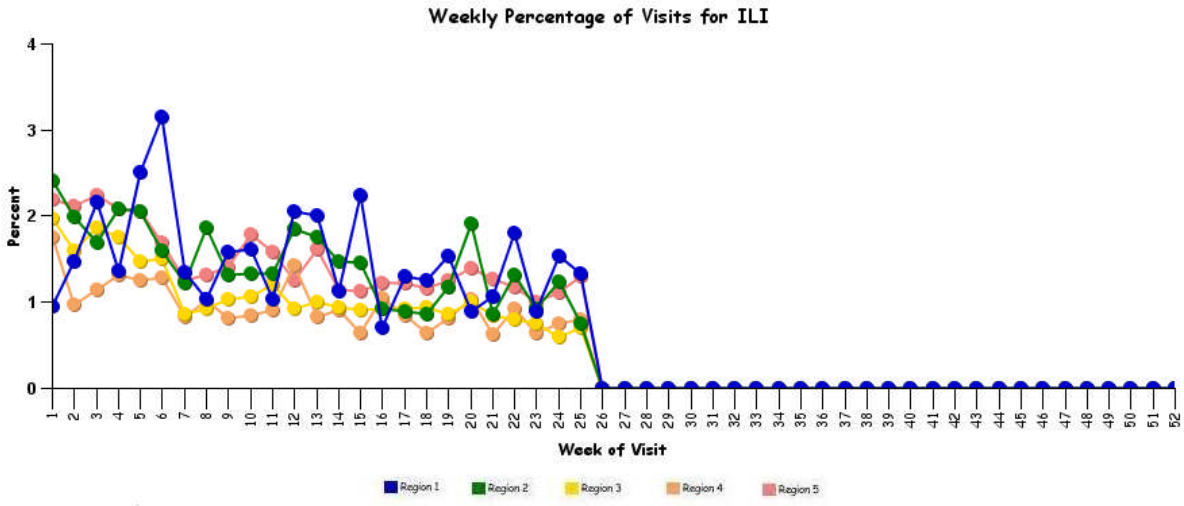
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the
week.



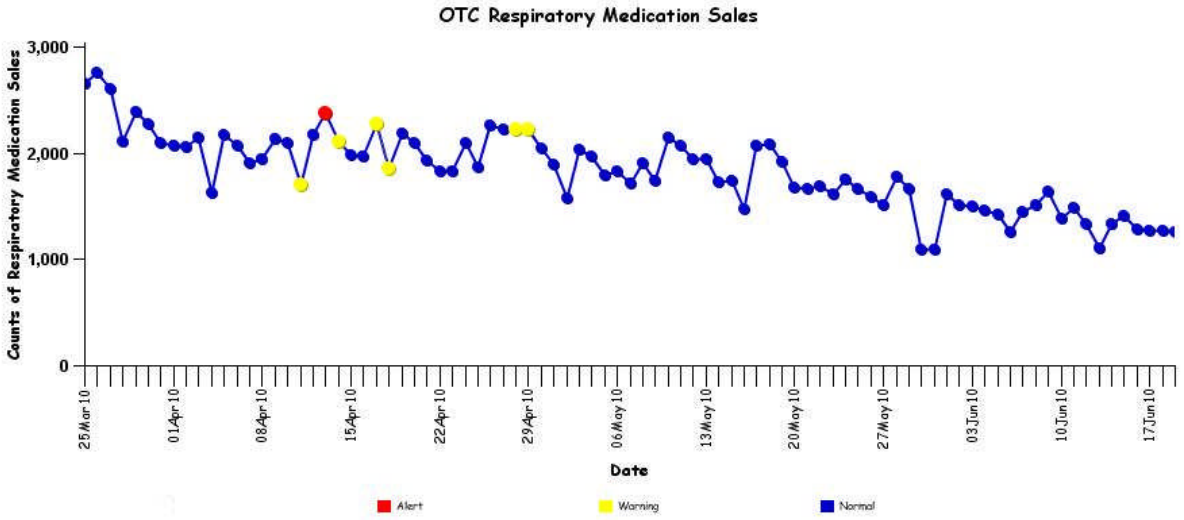
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/Documents/Plans/PandemicInfluenzaResponseAnnex(Version7.3).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of June 08, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 499, of which 295 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN, SUSPECTED (INDONESIA): 16 Jun 2010, A resident of Kabupaten Wonogiri is suspected to have died of bird flu [avian influenza (H5N1) virus infection]. The victim is a 55 year old resident of Dusun Pakelan RT4/RW2 Desa Jeporo, Kecamatan Jatipurno, Kabupaten Wonogiri. Previously, 2 children from Kecamatan [sub-district] Eramoko and Kecamatan Manyaran of Wonogiri were reported to have died of bird flu. "By observing clinical signs, the cause of death indicates bird flu infection. But, we're still waiting for blood test results from Jakarta laboratory," stated the head of Health Service, Kabupaten Wonogiri, dr AUG Jarot Budiharso, MKes. According to the head of infectious disease eradication and environmental health (Pemberantasan Penyakit Menular Penyehatan Lingkungan/P2MPL), Dr Tuti Darsari, the victim started to develop fever, nausea, and vomiting on 30 May 2010. He was brought to Amal Sehat hospital in Kecamatan Slogohimo, and then transferred to Marga Husada hospital in Wonogiri. Later, he was referred to Dr Oen hospital in Surakarta due to evidence of pneumonia. On 9 Jun 2010, the patient was transferred again to Dr Murwadi hospital in Solo. After only about 10 hours of medical care, the patient died with a suspected diagnosis of avian influenza (H5N1) virus infection in the Dr Murwadi hospital. Epidemiological investigation in Dusun Pakelan by the Health Service found that several chickens died of bird flu close to the victim's residence. The Head of Livestock, Fishery and Marine Services (Nakperla) of Wonogiri, Ir Ruli Pramono MM, stated that a team had been dispatched to the suspected location to undertake disinfection and investigation of any deaths of birds.

AVIAN INFLUENZA, WILD BIRDS, H5N1 (CHINA): 13 June 2010, The National Bird Flu Reference Lab found avian influenza virus subtype H5N1 in dead wild birds in Co Nyi, Nagqu Prefecture, the Information Office of the Ministry of Agriculture of China reported on 9 Jun 2010. Soon after receiving the report, the Ministry of Agriculture sent experts to Co Nyi to take preventive measures together with the local Departments of Forestry and Veterinary services, such as monitoring wild birds and informing farmers and herdsmen of the related measures. Up to now, no infected poultry has been found. Dead wild birds have appeared in Co Nyi since mid-May 2010. Up till 25 May 2010, a total of 170 dead wild birds have been seen, including 141 brown-headed gulls, 27 bar-headed geese, one chough and one wigeon. No more dead wild birds showed up after 25 May 2010.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC, WORLD HEALTH ORGANIZATION UPDATE (H1N1): 19 June 2010, Worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 18 172 deaths. WHO is actively monitoring the progress of the pandemic through frequent consultations with the WHO Regional Offices and member states and through monitoring of multiple sources of information.

The situation remains largely unchanged since the last update [11 Jun 2010]. Overall pandemic influenza activity remains low worldwide with geographically limited circulation of pandemic influenza virus in parts of the tropics, particularly in parts of Central America and the Caribbean and in parts of South and South East Asia. Seasonal influenza type B viruses continue to circulate at low levels across Asia and to a lesser extent across parts of Africa and South America. Recently re-emerged seasonal influenza H3N2 viruses continue to circulate in East Africa. As countries of the temperate southern hemisphere enter winter, overall only sporadic Influenza activity has been detected so far.

In tropical region of the Americas, low or waning circulation of pandemic virus has been primarily reported in Costa Rica (since early 2010) and in Cuba (last reported at the end of May 2010), respectively. In Cuba and to a lesser extent in Costa Rica recent pandemic influenza activity has been associated with small numbers of fatal cases. In Colombia, during the 1st week of June 2010, an increasing trend of respiratory diseases was associated with regional spread of pandemic influenza activity and a small number of new fatal cases, likely reflecting increasing but low level circulation of pandemic influenza virus. Throughout the rest of the region, there have been only sporadic detections of pandemic influenza virus during the past month. In several countries of the region, there has been recent circulation of seasonal influenza viruses including type A (Venezuela since May 2010) and B (Bolivia

since March 2010). Throughout the region there has been variable ongoing co-circulation of other respiratory viruses, particularly RSV [respiratory syncytial virus].

In Asia, pandemic influenza virus continues to actively circulate in Malaysia, Singapore, and to a much lesser extent in parts of India, Bangladesh, and Bhutan. In Malaysia, limited data suggest that virus transmission persists but continues to decline; the number of new cases reported per week plateaued during mid-April 2010 and began to decline at the end of May 2010. In Singapore, during the 2nd week of June 2010, the levels of ARI [acute respiratory infections] remained near the warning level but below the epidemic threshold; tests on about 28 per cent of respiratory samples from patients with ILI [influenza-like illnesses] were positive for pandemic influenza virus. In South Asia, low level circulation of pandemic influenza virus has persisted in western India (since early 2010) and Bangladesh (since late February 2010); in India but not Bangladesh, regional, low intensity transmission during 2010 has been associated with small numbers of fatal cases over time. Seasonal influenza type B viruses continue to co-circulate with pandemic influenza virus in Bangladesh and have only recently emerged and become predominant in India, although at low levels. Of note, there have been recent media reports of increasing pandemic influenza activity in the southern Indian state of Kerala and more information is expected to become available soon. In Bhutan, there have recent reports of school outbreaks of pandemic influenza virus infection in 3 separate areas of the country, however, the overall intensity of respiratory diseases in the population was reported to be low.

In Sub-Saharan Africa, pandemic influenza virus continued to circulate at low levels in limited areas of East and West Africa. During the 1st week of June 2010, 10 per cent and 16 per cent of all respiratory samples tested positive for pandemic influenza virus in Tanzania and Ghana, respectively. Small but significant numbers of seasonal H3N2 viruses continue to be been detected in Kenya and Tanzania since late May 2010.

Overall, in the temperate regions of the northern hemisphere, pandemic influenza viruses have been detected only sporadically in the past month. In the temperate southern hemisphere, only 2 countries, Chile and Uruguay, have recently reported small numbers of pandemic influenza virus detections. Other respiratory viruses, most notably RSV, are known to be circulating in Chile and Argentina. During 1st 2 weeks of June 2010, small numbers of seasonal influenza H3N2 and type B viruses have been detected in South Africa. In New Zealand and Australia, overall levels of ILI remain low; only sporadic detections of seasonal and pandemic influenza viruses have been recently reported in Australia.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

BOTULISM, AVIAN, SUSPECTED (MICHIGAN): 18 June 2010, Birds are dropping dead along a Northern Michigan shoreline near the Sleeping Bear Dunes, worrying local biologists. Biologists say they've also found hundreds of dead goby fish, which are believed to carry the botulism toxin. Over the years, hundreds of birds have died along the Michigan shoreline after contracting avian botulism. Just last July [2009], 40 dead seagulls were found near the dunes. Biologists say this year [2010] the combination of dead birds, dead fish, and a warm spring creates a cause for concern. Biologists want people to know it's still safe to be on the beaches and in the water. But people should be aware of this bird die-off and the possibility of an avian botulism outbreak. The test results from the dead birds should be back from the lab by next week. Biologists at Sleeping Bear Dunes National Shoreline are looking for volunteers to help monitor the beaches. (Botulism listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

ANTHRAX, HIPPOPOTAMUS (UGANDA): 18 June 2010, Two more hippos have died of suspected anthrax in Queen Elizabeth National Park, bringing the death toll to 29 since last Friday [11 Jun 2010]. The New Vision reported on Tuesday [16 Jun 2010] that at least 27 hippos had died of suspected anthrax. The Uganda Wildlife Authority (UWA) chief, Moses Mapesa, said he was still waiting for the results from the samples sent for analysis at the veterinary laboratory in Entebbe to find out what killed the animals. He added that it would take several weeks to analyse the samples. The park's conservation manager, Tom Okello, said the new cases were found near the Kazinga Channel in Katunguru. He said the wildlife authority had deployed a team to monitor the situation. Okello reiterated the authority's call on fishermen on lakes George and Edward, and the Kazinga Channel, to report any carcasses floating on the waters. He also warned cattle-keepers to desist from grazing their animals in the park to prevent them from catching the disease. Okello also warned against eating game meat. Animals that die of the disease must be buried or burnt to prevent contamination. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, BUBONIC, FATAL (CHINA): 18 Jun 2010, A construction worker in Gansu Province died soon after he hunted, cooked, and ate an infected marmot, the provincial health authority has announced. The authority announced on Tuesday, 15 Jun 2010, that the man developed a high fever and swollen lymph glands under his left armpit. He was also shivering and suffered from fatigue after he ate the animal on Saturday morning, 13 Jun 2010. He was rushed to the People's Hospital in the Aksai Kazakh

autonomous county and died a few hours later. He was diagnosed with bubonic plague. The man was one of the workers building a road from Dunhuang to Dangjinshan. He hunted a marmot for food near the construction site. A worker with the project's administrative office confirmed the case to the Global Times but declined to give details. The local health authority launched emergency response measures after the incident by sending experts to disinfect the construction site. "As of right now, none of those who had close contact with the man shows any abnormal symptoms," the health authority said in a statement. Health officials have urged herdsmen, tourists, and workers to stay away from marmots and their resting place. They also urged residents to inform authorities if they spot any dead marmots. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (VIET NAM): 17 June 2010, According to the Preventive Health Department under the Ministry of Health, 7 people have died of viral encephalitis in the country in the last month. A total of 120 people have been infected so far in 15 provinces and cities including Ha Noi and HCM City and Nam Dinh, Bac Giang, Nghe An, Thanh Hoa, Dak Lak, and Dong Nai. Dr Tran Nhu Duong, deputy head of the National Institute of Hygiene and Epidemiology, said the disease usually spreads most rapidly in both the north and south between May and August. The northern provinces had reported the highest incidence, he said. Japanese encephalitis [JE] is a very common disease among children aged under 15, with the fatality rate topping 30 per cent if patients are not treated in time. Duong dispelled a misconception that eating litchi causes the disease, explaining it is caused by a virus or hypersensitivity to a virus or foreign protein. "Mosquitoes spread the virus responsible for encephalitis," he said. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

VENEZUELAN EQUINE ENCEPHALITIS, FATAL (PANAMA): 13 June 2010, Franklin Vergara, Minister of Health, confirmed the death of a child aged 9 months due to Venezuelan equine encephalitis in Darien. This disease occurs in both humans and horses and is manifested by a fever, which causes neurological complications. It is transmitted by mosquitoes. It was learned that 2 other children remain in intensive care at Children's Hospital. Vergara explained that although this is usually not a deadly virus, in cases where the patient has some degree of malnutrition, the disease may cause death. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

BRUCELLOSIS, BOVINE (UK): 13 June 2010, Criminal practices may have been the cause of a brucellosis outbreak in a south Armagh cattle herd, it has been claimed. The Department of Agriculture confirmed the re-emergence of the disease on Friday [11 Jun 2010] and in a statement Agriculture Minister Michelle Gildernew said decent farmers in the area are suffering because of the illegal activities of a few individuals. The Minister said: "We know that we have the widespread backing of the farming community in our efforts to eradicate this disease. I am determined that the illegal activities of a few self-serving individuals do not undermine our efforts to eradicate brucellosis. "There are indications that irresponsible and even criminal practices are at the heart of this cluster of infection, with decent farmers having to suffer the consequences." This recent brucellosis outbreak has exposed the depth of the problem in South Armagh, particularly in the outlying area of the town of Keady. Since the start of 2010 8 cases of the disease have been discovered, 6 of which have been confirmed with 2 awaiting confirmation. 5 herds were found to have brucellosis reactors between the months of January and March, however in the last 3 weeks another 3 herds have been highlighted with each showing multiple reactors. The breakdowns in this area have so far resulted in the depopulation of more than 300 cattle. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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